DOCUMENT RESUME

ED 303 058 HE 021 634

AUTHOR	Mahoney, Susan S.
TITLE	Summary of Credit by Examination at the University of Texas at Austin 1986-1987.
INSTITUTION	Texas Univ., Austin. Measurement and Evaluation Center.
REPORT NO	SR-87-2
PUB DATE	Sep 87
NOTE	22p.
PUB TYPE	Statistical Data (110) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Ability Grouping; *Acceleration (Education); Achievement Tests; *Advanced Placement; *College Credits; College Students; *Equivalency Tests; Higher Education; Prior Learning; Scores; Student Placement; Testing
IDENTIFIERS	*Credit by Examination; *University of Texas Austin

ABSTRACT

The results of the program of credit by examination at the University of Texas at Austin during the 1986-1987 testing year are presented. The data provide a basis for a comprehensive picture of the impact of the program on this campus. The examinations covered 51 subject areas with 171 courses taught in 36 departments/divisions in 8 colleges and schools of the University (business administration, communication, education, engineering, fine arts, liberal arts, natural sciences, and nursing). Evaluation of the 26,023 test scores is recorded. The results of tests in the 10 subject areas in which the majority of students were tested during 1986-1987 are displayed (biology, chemistry, English, French, German, government, history, math, physics, and Spanish). The three subjects standing out as the ones in which students most often attempted to earn credit by examination are English, Spanish, and mathematics, and they also generated the majority of semester hours of credit eligibility. A 5-year summary of credit by examination at the University of Texas at Austin (by subject area) is presented with the 10 largest volume subjects shown individually. The results of examinations in the eight colleges and schools are shown separately. The five testing categories covered in this report are institutional administrations, departmental administrations, and national administrations of CLEP (College-Level Examination Program) subject examinations, Advanced Placement examinations, and achievement tests. Four figures and 13 tables are included. (SM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED303058

SUMMARY OF CREDIT BY EXAMINATION AT THE UNIVERSITY OF TEXAS AT AUSTIN 1986-1987

Susan S. Mahoney

SR-87-2 September 1987

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Measurement & Eval. Center, University of Texas

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

MEASUREMENT AND EVALUATION CENTER
The University of Texas at Austin

BEST COPY AVAILABLE

HE 021 634

SUMMARY OF CREDIT BY EXAMINATION AT THE UNIVERSITY OF TEXAS AT AUSTIN 1986-1987

Susan S. Mahoney

This Special Report documents the results of the program of credit by examination at The University of Texas at Austin during the 1986-1987 testing year. The data present a basis for a comprehensive picture of the impact of the program on this campus. The examinations covered 51 subject areas with 171 courses taught in 36 departments/divisions in eight colleges and schools of the University: Business Administration, Communication, Education, Engineering, Fine Arts, Liberal Arts, Natural Sciences, and Nursing.

Evaluation of 26,023 test scores is recorded in this report. Because many students took more than one test, the total number of tests exceeds the actual number of students who attempted to earn credit by examination.

On 13,514 (52%) of these tests, students achieved scores high enough to qualify for 73,010 semester hours of credit eligibility. Conversely, on 12,509 (48%) of these tests, students' scores were too low to warrant credit by examination.

During 1986-1987, there was an increase of 1% over the preceding year in the number of test scores evaluated; it was accompanied by a 10% increase in the number of semester hours of credit eligibility. Across the five years from 1982-1983 through 1986-1987, there has been a 23% increase in the number of test scores evaluated and a 47% increase in the number of semester hours of credit eligibility earned by the candidates for credit by examination.

The reader should be aware that no attempt was made in this report to document the semester hours of credit reported by the Measurement and Evaluation Center (MEC) to the Registrar's office for this testing year.

Table 1 and Figure 1 display the results of tests in the 10 subjects in which the majority of the students were tested during 1986-1987: biology, chemistry, English, French, German, government, history, mathematics, physics, and Spanish. This table shows the numbers and percentages of test scores evaluated for each subject, along with the numbers and percentages of tests generating credit and the semester hours of credit eligibility

Table 1

Summary of Credit by Examination at U.T. Austin:
Test Volume and Credit Eligibility
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Biology	266	1%	202	1%	1,500	2%
Chemistry	747	3%	279	2%	964	1%
English	9,246	36%	3,893	29%	12,936	18%
French	993	4%	696	5%	7,086	10%
German	422	2%	201	1%	1,818	2%
Government	733	3%	610	5%	1,830	3%
History	625	2%	331	2%	1,848	3%
Mathematics	8,675	33%	3,748	28%	12,236	17%
Physics	478	2%	284	2%	1,936	3%
Spanish	3,002	12%	2,525	19%	25,623	35%
Subtotal	25,187	97%*	12,769	94%	67,777	93%*
All other subjects	836	3%	745	6%	5,233	7%
Total	26,023	100%	13,514	100%	73,010	100%

*Because of rounding error, this percentage differs by 1% from the percentage obtained by addition of the above 10 percentages.

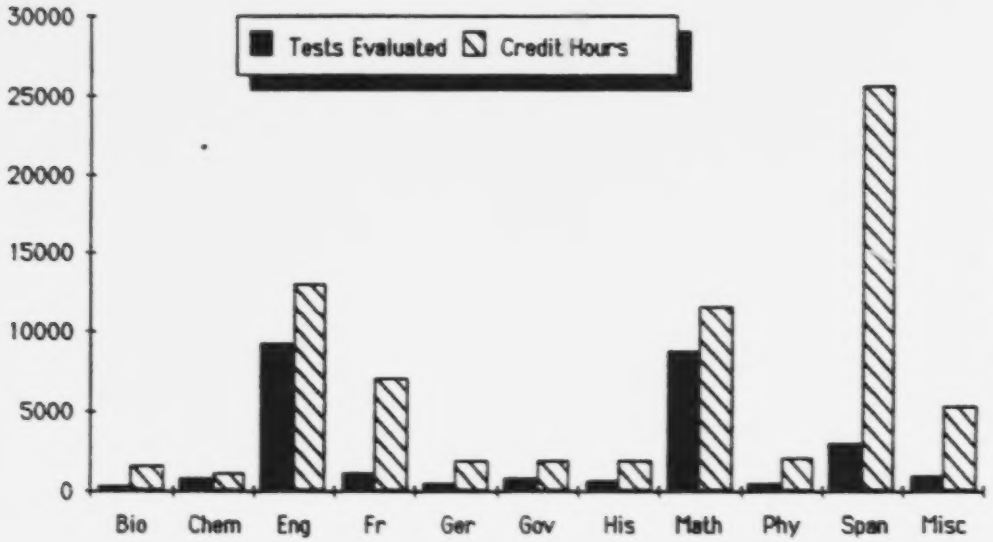

Figure 1. This figure displays test volume and semester hours of credit eligibility generated in the 10 major subject areas and in a miscellaneous category for all other subjects.

generated in each area. Figure 1 compares test volume and semester hours generated among the same 10 subjects.

Those 10 subjects accounted for 25,187 examinations. That number represents 97% of the total test volume during 1986-1987, with all other subjects making up the remaining 3%. With satisfactory scores on 12,769 tests, those 10 high volume subjects also produced most of the credit eligibility generated by the program during 1986-1987: 67,777 semester hours, or 93% of the total of 73,010.

Three subjects stand out as the ones in which students most often attempted to earn credit by examination: English and Spanish in the College of Liberal Arts and mathematics in the College of Natural Sciences. During the 1986-1987 testing year, 20,923 (80%) of the 26,023 test scores evaluated were in those three subjects. In combination, those three subjects provided 10,166 test scores generating credit eligibility, or 75% of the 13,514 successful attempts. As one might expect, those three areas also generated the majority of semester hours of credit eligibility: 50,795, or 70% of the

total of 73,010 semester hours. The 9,246 English tests produced the highest volume for a single subject; they constituted 36% of the total volume. Placing second in test volume were the 8,675 (33%) mathematics tests, which were followed in the third place by Spanish with 3,002 (12%) tests.

Table 2 compares results from the 1986-1987 year by subject with those from the 1985-1986 testing year. Numbers of test scores evaluated, test scores generating credit, and semester hours of credit eligibility are shown, as well as differences between the two years. The 10 subjects that generated the majority of the test volume are listed discretely; results of tests in all other subjects are combined.

The total of 26,023 test scores were evaluated during the 1986-1987 testing year compared to a total of 25,650 during the preceding year--an increase in volume of 373 (1%) tests. At the same time, 13,514 test scores generated credit eligibility in 1986-1987, an increase of 1,038 (8%) over the 12,476 succcessful tests in 1985-1986. The number of semester hours of credit eligibility generated rose 10%, an additional 6,812 hours, from 66,198 to 73,010.

In English, the largest subject area in test volume, there was a decrease of 40 (<1%) in the number of test scores evaluated during 1986-1987, and a 9% increase in the number of test scores meriting credit. This increase of 330 qualifying test scores produced a comparable increase of 885 (7%) in the number of semester hours, a total of 12,936 hours.

As a subject, mathematics also experienced a decrease over the two years. There were 408 (-4%) fewer test scores evaluated during 1986-1987, while 144 (4%) additional test scores generated credit eligibility and, as a consequence, the number of semester hours earned increased by 643 (6%).

Spanish had an increase of 244 (9%) in its test population. Spanish test scores generating credit increased by 230 (10%), while the number of semester hours of credit eligibility earned by the successful students increased by 2,155 (9%).

In history, an additional 113 scores brought that subject's testing volume up from 512 to 625--an increase of 22%. There were 331 tests meriting

Table 2
Comparisons, by Subject, Including Numbers of Test Scores Evaluated, Tests Generating Credit Eligibility, Semester Hours of Credit Eligibility, and Differences Between 1985-1986 and 1986-1987

Subject	Test Scores Evaluated				Test Scores Generating Eligibility				Semester Hours of Credit Eligibility			
	'85-'86	'86-'87	Difference		'85-'86	'86-'87	Difference		'85-'86	'86-'87	Difference	
	N	N	N	%	N	N	N	%	N	N	N	%
Biology	218	266	48	22%	160	202	42	26%	1,095	1,500	405	37%
Chemistry	680	747	67	10%	231	279	48	21%	813	964	151	19%
English	9,286	9,246	-40	-<1%	3,563	3,893	330	9%	12,051	12,936	885	7%
French	904	993	89	10%	690	696	6	1%	6,292	7,086	794	13%
German	340	422	82	24%	278	201	-77	-28%	2,694	1,818	-876	-33%
Government	688	733	45	7%	517	610	93	18%	1,551	1,830	279	18%
History	512	625	113	22%	257	331	74	29%	1,482	1,848	366	25%
Mathematics	9,083	8,675	-408	-4%	3,604	3,748	144	4%	11,593	12,236	643	6%
Physics	448	478	30	7%	238	284	46	19%	1,672	1,936	264	16%
Spanish	2,758	3,002	244	9%	2,295	2,525	230	10%	23,468	25,623	2,155	9%
Subtotal	24,917	25,187	270	1%	11,833	12,769	936	8%	62,711	67,777	5,066	8%
All other subjects	733	836	103	14%	643	745	102	16%	3,487	5,233	1,746	50%
Total	25,650	26,023	373	1%	12,476	13,514	1,038	8%	66,198	73,010	6,812	10%

credit--an increase of 74 (29%)--and a total of 1,848 semester hours of credit eligibility--an increase of 25%. Government had an increase of 45 (7%) in test volume (from 688 to 733 test scores). The 610 government test scores generating credit, an increase of 93 (18%), produced 1,830 semester hours of credit, an increase of 279 (18%).

Test volume in German increased by 82 (24%) tests. The number of test scores generating credit decreased by 77 (-28%). There was a decrease in semester hours of credit eligibility--876 fewer hours for a total of 1,818 hours, a 33% decrease.

Test volume in the third foreign language in this comparison--French--showed an increase of 89 (10%), from 904 to 993 tests. An additional 6 (1%) test scores warranted credit with the resulting total of 7,086 semester hours earned, an increase of 794 (3%).

As a subject, chemistry had an increase of 67 (10%) in test volume. There was an increase of 48 (21%) in the number of test scores meriting credit; the 279 scores of 1986-1987 produced a total of 964 semester hours of credit eligibility, an increase of 151 (19%) additional hours.

Test volume increased by 48 (22%) in biology; the number of test scores generating credit increased by 42 (26%). There was an increase of 405 (37%) in the number of semester hours of credit eligibility earned in 1986-1987.

Physics showed an increase of 30 (7%) in test volume, an increase of 46 (19%) in test scores generating credit, and an increase of 264 (16%) in the amount of credit eligibility earned by the students.

Tests in all other subjects combined increased from 733 to 836, a gain of 103 (14%) in test volume, with an additional 102 (16%) test scores producing 1,746 (50%) additional semester hours of credit eligibility.

Also presented by subject areas, Table 3 and Figure 2 provide a five-year summary of credit by examination at U.T. Austin. Numbers for test scores evaluated and semester hours of credit eligibility are recorded for the years 1982-1983 through 1986-1987. Once again, the 10 largest volume

Table 3

Five-Year Summary of Credit by Examination at U.T. Austin: Numbers of Test Scores Evaluated and Semester Hours of Credit Eligibility, 1982-1987

Subject	1982-1983		1983-1984		1984-1985		1985-1986		1986-1987	
	Test Scores	Semester Hours of Credit	Test Scores	Semester Hours of Credit	Test Scores	Semester Hours of Credit	Test Scores	Semester Hours of Credit	Test Scores	Semester Hours of Credit
Biology	200	615	223	924	206	999	218	1,095	266	1,500
Chemistry	695	1,086	700	655	686	778	680	813	747	964
English	7,286	8,859	6,957	9,252	8,166	10,791	9,286	12,051	9,246	12,936
French	624	3,708	769	5,724	852	6,094	904	6,292	993	7,086
German	279	1,896	290	2,226	344	2,862	340	2,694	422	1,818
Government	795	1,509	909	1,740	611	1,398	688	1,551	733	1,830
History	230	624	272	666	475	1,359	512	1,482	625	1,848
Mathematics	7,956	8,209	8,032	9,348	8,959	11,076	9,083	11,593	8,675	12,236
Physics	274	919	337	1,348	373	1,452	448	1,672	478	1,936
Spanish	1,989	19,238	2,266	20,883	2,585	23,181	2,758	23,468	3,002	25,623
Subtotal	20,328	46,663	20,755	52,766	23,257	59,990	24,917	62,711	25,187	67,777
All other subjects	752	2,888	853	3,201	812	3,630	733	3,487	836	5,233
Total	21,080	49,551	21,608	55,967	24,069	63,620	25,650	66,198	26,023	73,010

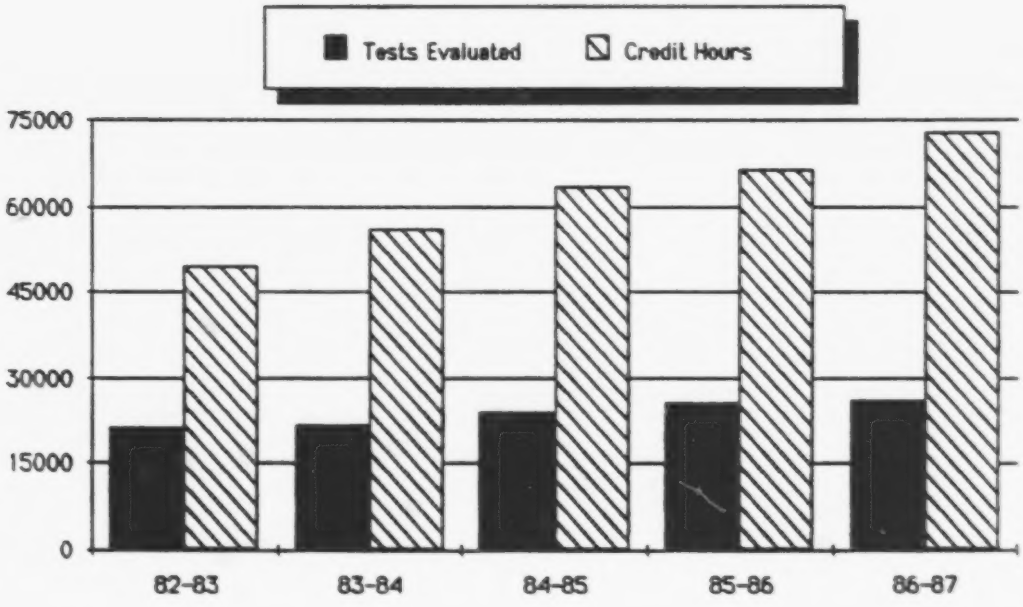

Figure 2. This figure provides a five-year summary of the results of the program of credit by examination at U.T. Austin. It reveals a steady increase in testing volume and in generation of semester hours of credit eligibility from academic years 1982-1983 through 1986-1987.

subjects are shown individually, with all other subjects merged. Across the five years, there were increases of 4,943 (23%) in the number of test scores evaluated and of 23,459 (47%) in the number of semester hours of credit eligibility earned. The greatest increases in the number of semester hours of credit eligibility earned by students occurred in five subjects: history (196%), biology (144%), physics (111%), mathematics (49%), and English (46%).

In Tables 4-11, the results of examinations in the eight colleges and schools are presented separately. Each table in this series shows the subject areas, as well as the numbers and percentages of test scores evaluated, test scores generating credit eligibility, and semester hours of credit eligibility. Table 12 summarizes, alphabetically by college and school, the data from the eight tables.

Table 4

College of Business Administration
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Accounting	3	50%	3	50%	9	50%
Data Processing and Analysis	1	17%	1	17%	3	17%
Office Administration	1	17%	1	17%	3	17%
Risk Management and Insurance	1	17%	1	17%	3	17%
Total	6	101%*	6	101%*	18	101%*

*This figure differs from 100% only because of rounding error.

The College of Liberal Arts ranked first in test volume with 15,628 tests--60% of the total volume of 26,023 tests and 55,652 (76%) of the total number of semester hours of credit eligibility. When one recalls that test scores from two of the largest volume tests (College Board Achievement Tests in English Composition and in Spanish Listening-Reading) were recorded in the College of Liberal Arts, it is not surprising that the majority of the test scores evaluated during the year were in this college. The 10,272 (39%) tests in the College of Natural Sciences placed it in second rank; 16,874 (23%) semester hours of credit eligibility accrued. The number of examinations in mathematics (8,675) is largely responsible for this high test volume.

Table 5

College of Communication
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Radio-Television-Film	1	100%	1	100%	3	100%
Total	1	100%	1	100%	3	100%

Table 6

College of Education
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Health Education	1	50%	1	50%	3	50%
Physical Education	1	50%	1	50%	3	50%
Total	2	100%	2	100%	6	100%

Table 7
College of Engineering
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Civil Engineering	1	4%	1	5%	3	5%
Electrical Engineering	20	87%	18	86%	54	89%
Mechanical Engineering	2	9%	2	10%	4	7%
Total	23	100%	21	101%*	61	101%*

* This figure differs from 100% only because of rounding error.

Table 8
College of Fine Arts
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Art	11	37%	6	24%	18	27%
Drama	6	20%	6	24%	16	24%
Music	13	43%	13	52%	32	48%
Total	30	100%	25	100%	66	99%*

*This figure differs from 100% only because of rounding error.

Table 9

College of Liberal Arts
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Arabic	6	<1%	6	<1%	21	<1%
Chinese	163	1%	159	2%	2,680	5%
Czech	1	<1%	1	<1%	3	<1%
Danish	3	<1%	3	<1%	13	<1%
Dutch	6	<1%	6	<1%	30	<1%
Economics	137	1%	119	1%	498	1%
English	9,246	59%	3,893	44%	12,936	23%
French	993	6%	696	8%	7,086	13%
German	422	3%	201	2%	1,818	3%
Government	733	5%	610	7%	1,830	3%
Greek	5	<1%	5	<1%	25	<1%
Hebrew	26	<1%	26	<1%	136	<1%
Hindi	8	<1%	8	<1%	34	<1%
History	625	4%	331	4%	1,848	3%
Italian	11	<1%	11	<1%	51	<1%
Japanese	8	<1%	8	<1%	34	<1%

(continued on next page)

Table 9 (continued)

College of Liberal Arts

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Latin	41	<1%	29	<1%	278	<1%
Norwegian	11	<1%	11	<1%	55	<1%
Persian	2	<1%	2	<1%	12	<1%
Philosophy	1	<1%	1	<1%	3	<1%
Portuguese	8	<1%	8	<1%	44	<1%
Psychology	55	<1%	43	<1%	129	<1%
Russian	14	<1%	11	<1%	171	<1%
Serbo-Croatian	1	<1%	1	<1%	3	<1%
Sociology	92	1%	84	1%	252	<1%
Spanish	3,002	19%	2,525	29%	25,623	46%
Swahili	1	<1%	1	<1%	4	<1%
Swedish	7	<1%	7	<1%	35	<1%
Total	15,628	99%*	8,806	98%*	55,652	97%*

* This figure differs from 100% only because of rounding error.

Table 10
College of Natural Sciences
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Astronomy	1	<1%	1	<1%	3	<1%
Biology	266	3%	202	4%	1,500	9%
Chemistry	747	7%	279	6%	964	6%
Computer Sciences	98	1%	74	2%	222	1%
Geology	1	<1%	1	<1%	3	<1%
Home Economics	4	<1%	2	<1%	4	<1%
Mathematics	8,675	84%	3,748	82%	12,236	73%
Physics	478	5%	284	6%	1,936	11%
Zoology	2	<1%	2	<1%	6	<1%
Total	10,272	100%	4,593	100%	16,874	100%

Table 11
School of Nursing
Summary, by Subject, of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Nursing	61	100%	60	100%	330	100%
Total	61	100%	60	100%	330	100%

Table 12

Summary, by College/School, of Results of U.T. Austin's Program of Credit by Examination 1986-1987

College/School	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Business Administration	6	<1%	6	<1%	18	<1%
Communication	1	<1%	1	<1%	3	<1%
Education	2	<1%	2	<1%	6	<1%
Engineering	23	<1%	21	<1%	61	<1%
Fine Arts	30	<1%	25	<1%	66	<1%
Liberal Arts	15,628	60%	8,806	65%	55,652	76%
Natural Sciences	10,272	39%	4,593	34%	16,874	23%
Nursing	61	<1%	60	<1%	330	<1%
Total	26,023	99%*	13,514	99%*	73,010	99%*

*This figure differs from 100% only because of rounding error.

Table 13 is ordered by testing category; it shows numbers and percentages of test scores evaluated, test scores generating credit eligibility, and semester hours of credit eligibility. The percentages in Table 13 and in Figure 3 compare the data in each category to the results of the testing program as a whole.

Several observations can be made about the results of the five different testing categories covered in this report. First, institutional, on-campus group administrations considerably outnumbered the other four categories; its

Table 13

Summary, by Testing Category, of Results of U.T. Austin's Program of Credit by Examination
1986-1987

Subject	Test Scores Evaluated		Test Scores Generating Credit Eligibility		Semester Hours of Credit Eligibility	
	N	%	N	%	N	%
Institutional Administrations	16,529	64%	8,129	60%	48,828	67%
Departmental Administrations	260	1%	249	2%	1,103	2%
National Administrations of CLEP Subject Examinations	84	<1%	82	1%	250	<1%
National Administrations of AP Examinations	3,279	13%	2,286	17%	13,795	19%
National Administrations of Achievement Tests	5,871	23%	2,768	20%	9,034	12%
Total	26,023	101%*	13,514	100%	73,010	100%

*This figure differs from 100% only because of rounding error.

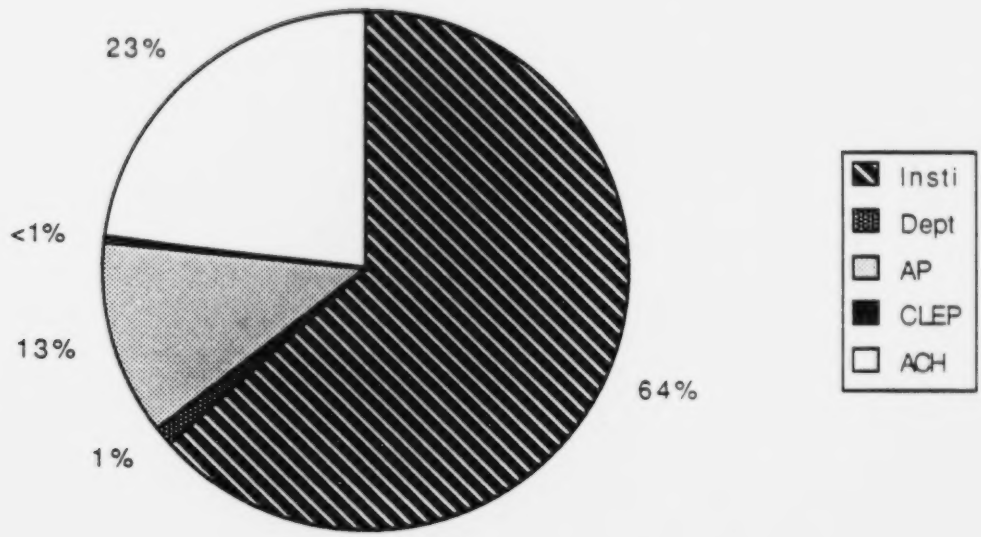

Figure 3. This figure shows the percentages of test scores evaluated by the Measurement and Evaluation Center in each of five categories of test administration.

16,529 tests were responsible for 64% of the test volume documented in this Special Report. This category was also the source of the highest percentage (67%) of credit eligibility generated in all five categories of U.T. Austin's program of credit by examination. Credit eligibility was established by 8,129 institutional examinations, which represented 60% of the total of 13,514 test scores generating credit eligibility.

National administrations of College Board Achievement Tests ranked second in comparisons of test volume and credit eligibility. The evaluation of 5,871 (23%) scores yielded 9,034 (12%) semester hours of credit eligibility. The 2,768 scores warranting credit were 20% of the total number of test scores that generated credit eligibility.

The percentages change as one turns from comparisons among the testing categories to comparisons within each category (Figure 4). Ninety-eight percent (N = 82) of the 84 scores from national administrations of the CLEP

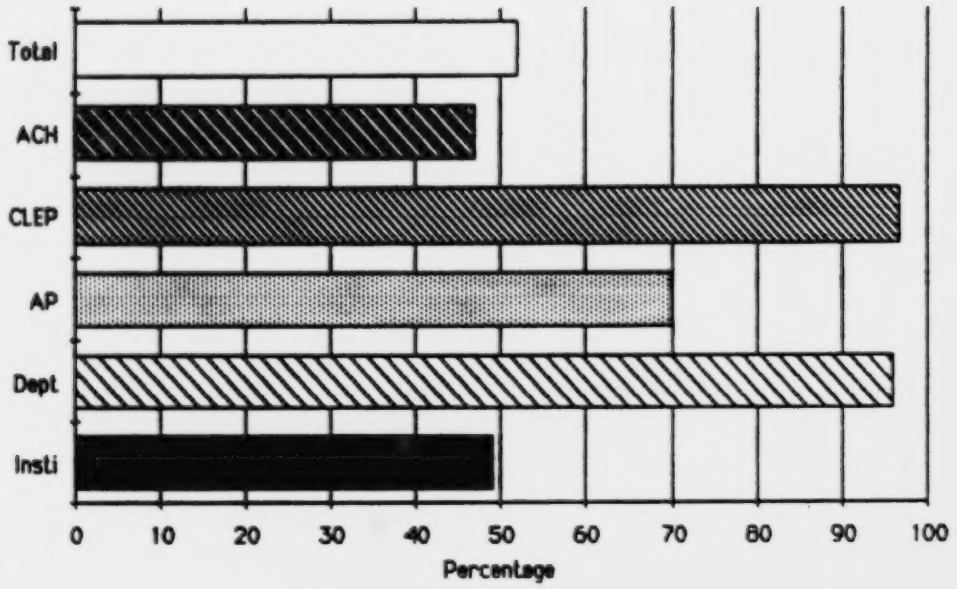

Figure 4. This figure indicates the percentages of test scores generating credit eligibility in the 1986-1987 testing program; the percentages are given within each category of test administration.

Subject Examinations merited credit eligibility, while 249 (96%) of the 260 departmentally administered individual examinations did so. National administrations of the Advanced Placement Examinations ranked third, with 2,268 (70%) of its 3,279 test scores generating credit. Institutional administrations of 16,529 tests and national administrations of 5,871 College Board Achievement Tests resulted in lower rates of successful performance: 49% and 47%, respectively.